CLAIMS:

1. A pedestrian detection system provided on a motor vehicle, the motor vehicle having a hood or bonnet, the detection system comprising : a first sensor arrangement located more than 0.5 metres behind the front end of the vehicle to detect the speed of and/or distance to a part of an object located in front of the vehicle, the said part of the object being part of the object extending above a predetermined height, the predetermined height being at least the height of the front edge of the hood or bonnet; and a second sensor arrangement comprising a sensor mounted in the front bumper or fender of the vehicle responsive to an impact of the vehicle with an object.

2. A system according to Claim 1 wherein the first sensor arrangement is a microwave radar.

3. A system according to Claim 1 wherein the first sensor arrangement is an infra-red radar.

4. A system according to Claim 1 wherein the first sensor arrangement is a camera.

5. A system according to Claim 4 wherein the camera operates in the visible spectrum.

6. A system according to Claim 4 in which the camera operates in the infra-red spectrum.

7. A system according to Claim 1 wherein the first sensor arrangement is a stereo-camera arrangement.

8. A system according to any one of the preceding Claims wherein the first sensor arrangement is mounted on the exterior of the vehicle in front of a windscreen or windshield provided on the vehicle.

9. A system according to any one of Claims 1 to 7 wherein the first sensor arrangement is mounted on the vehicle behind the windscreen or windshield of the vehicle.

10. A system according to any one of Claims 1 to 7 wherein the first sensor arrangement is mounted above the windscreen.

11. A system according to any one of the preceding Claims wherein a pedestrian protection arrangement is provided, the detection system being configured to activate the pedestrian arrangement device in response to the first sensor arrangement detecting the distance below a threshold and/or a speed above a threshold.

12. A system according to Claim 11, wherein the threshold distance is less than the distance between the sensor and the front of the vehicle.

13. A system according to any one the preceding Claims wherein the second sensor arrangement further includes an accelerometer.

14. A system according to Claim 13, wherein the accelerometer is configured to provide a signal indicative of a crash situation and wherein, upon receipt of said signal, an internal safety device on the vehicle is actuated.

15. A system according to any one of the preceding Claims wherein the sensor mounted in the front bumper is a contact sensor.

16. A system according to any one of the preceding Claims wherein the second sensor arrangement is a sensor that can discriminate objects lighter than a pedestrian.

17. A system according to any one of the preceding Claims wherein the pedestrian protection arrangement is activated only if the first sensor arrangement detects a distance below a threshold and/or a speed above a threshold, and also the second sensor arrangement detects an object.

18. A system according to any one of the preceding Claims wherein the pedestrian protection arrangement has at least two modes of activation.

19. A system according to Claim 18 wherein the pedestrian protection arrangement system incorporates at least two pedestrian protection devices.

20. A system according to Claim 18 wherein the pedestrian protection arrangement incorporates a lifter to lift the front part of the hood or bonnet, and a lifter to lift the rear part of the hood or bonnet, one mode of activation being the lifting of the front part of the hood or bonnet, a second mode of operation including additionally the lifting of the rear part of the hood or bonnet.

21. A system according to any one of Claims 18 to 20 wherein the pedestrian protection arrangement includes a mechanism to lift the rear part of the hood or bonnet, and at least one air-bag to cover part of the windscreen and/or part of A-Pillars provided on the vehicle, one mode of activation

comprising the lifting of only the rear part of the hood or bonnet, the second mode including additionally the activation of at least one air-bag.

22. A system according to any one of Claims 18 to 20 wherein different modes are activated in response to a signal dependent on the first sensor arrangement reaching different thresholds.

23. A system according to Claim 22 wherein at least one of said different thresholds is dependent upon the vehicle speed as measured by a third sensor arrangement.